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cont.*

2) a step portion formed on the one side of the first substrate in a region overlapping said sealing material, and

3) a transparent cover adhered to the lens array substrate with an adhesive that covers said microlenses and said portion.--

--13. A method for fabrication an electro-optical device which comprises a pair of substrates including a first substrate and a second substrate, a liquid crystal enclosed between the pair of substrates, and a plurality of pixels formed in a matrix disposed within said pair of substrates, said first substrate including a lens array substrate, said method comprising:

forming a plurality of convex microlenses with one microlens corresponding to each of said plurality of pixels on said lens array substrate, the plurality of microlenses being formed at one side of the first substrate;

forming a step portion on the one side of the first substrate on a peripheral of said first substrate;

Cont. adhering a transparent cover to said lens array substrate with an adhesive to cover said microlenses and said step portion;

forming a sealing material;

superposing the first substrate on the second substrate to face said step portion with the sealing material therebetween; and

curing said sealing material while pressing said first substrate on the second substrate.--

--14. A method for fabrication an electro-optical device which comprises a pair of substrates including a first substrate and a second substrate, an electro-optical material enclosed between the pair of substrates, and a plurality of pixels formed in a matrix disposed

within said pair of substrates, said first substrate including a lens array substrate, said method comprising:

forming a plurality of convex microlenses with one microlens corresponding to each of said plurality of pixels on said lens array substrate, the plurality of microlenses being formed on one side of the first substrate;

forming a step portion on the one side of the first substrate on a peripheral of said first substrate;

bonding a transparent cover to said lens array substrate with an adhesive so as to cover said microlenses and said step portion;

forming a sealing material;

superposing the first substrate on the second substrate to face said step portion with the sealing material therebetween; and

curing said sealing material while applying pressure from an exterior of said pair of substrates. --

--15. An electro-optical device, comprising:

a pair of substrates including a first and a second substrate adhered together with a sealing material;

an electro-optical material enclosed between said pair of substrates, said second substrate having a plurality of scanning lines, a plurality of data lines intersecting said plurality of scanning lines, a pixel having a switching device connected to each of said scanning lines and each of said data lines, and a pixel electrode connected to said switching device, and the first substrate including:

Claim 16

- 1) a lens array substrate provided with a plurality of convex microlenses with one microlens corresponding to each of said plurality of pixels, the plurality of microlenses being formed on one side of the first substrate,
- 2) a step portion formed on the one side of the first substrate in a region overlapping said sealing material, and
- 3) a transparent cover adhered to the lens array substrate with an adhesive that covers said microlenses and said portion.--

Claim 16

--16. An electro-optical device, comprising:

Claim 16

and

a first substrate;

a second substrate;

a sealing material that adheres the first and second substrates together;

an electro-optical material disposed between the first and second substrates;

a plurality of pixels arranged in a matrix and disposed between the first and second substrates;

the first substrate including:

- a lens array substrate that defines a plurality of convex microlenses,
- a substantially planar portion, at least a portion of the substantially planar portion being disposed opposite the sealing material,
- a transparent cover, and
- an adhesive that adheres the transparent cover to the lens array

Claim 17

substrate --

--17. The electro-optical device according to claim 16, the adhesive being disposed at the plurality of microlenses and the substantially planar portion.--

--18. The electro-optical device according to claim 17, the adhesive covering the plurality of microlenses and the substantially planar portion.--

--19. The electro-optical device according to claim 17, the adhesive disposed at the substantially planar portion having a substantially uniform thickness.--

--20. The electro-optical device according to claim 16, the substantially planar portion having a dimension that is greater than a corresponding dimension of the sealing material.--

--21. The electro-optical device according to claim 16, the substantially planar portion being disposed peripheral to the plurality of microlenses.--

--22. The electro-optical device according to claim 16, each of the plurality of pixels corresponding to each of the plurality of microlenses.--

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cont.
--23. The electro-optical device according to claim 16, the substantially planar portion being defined at an edge of the first substrate.--

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--24. A method of manufacturing an electro-optical device that includes a first substrate having a lens array substrate and a transparent cover, a second substrate, an electro-optical material disposed between the first and second substrates, sealing material, and a plurality of pixels arranged in a matrix disposed between the first and second substrates, the method comprising:

forming a plurality of microlenses on the lens array substrate;

forming a substantially planar portion on the first substrate;

adhering the transparent cover to the lens array substrate;

superposing the first substrate over the second substrate with the sealing material disposed therebetween such that at least a portion of the substantially planar portion is disposed opposite the sealing material; and